CDEI News June 30, 1971

The Institute for Advanced Technology



- presents -

MANAGING COMPUTER OPERATIONS IN A COMPLEX OPERATING ENVIRONMENT

A SEMINAR DIRECTED AT INCREASING SYSTEMS PRODUCTIVITY, DISCUSSING THE LATEST IN REMOTE AND ON-SITE OPERATING TECHNIQUES

FOUR 3-DAY SEMINARS

August 30 - September 1, 1971 Washington, D. C.

September 29 - October 1, 1971 San Francisco, California

> November 1 - 3, 1971 New York, N. Y.

> > November 22 - 24, 1971 Washington, D. C.

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THE INSTRUCTOR: MR. LEONARD A. KREUTER is the Senior Partner of L. Kreuter Associates. From 1965 to 1967, he was employed by the Burroughs Corporation in the position of Sales Manager directing Large System Sales Managers throughout the country in marketing Burroughs large-scale computing equipment. In 1967, Mr. Kreuter joined C-E-I-R, Inc/Control Data Corporation as Eastern Regional Manager of the New York C-E-I-R Center. From December, 1967 to June, 1968, he was Corporation Product Manager for the Burroughs Corporation. As one of the four planning managers, his prime responsibility was the development of a plan for Burroughs Corporation to enter on an international basis into the Time-Sharing Data Center Business. In June 1968, Mr. Kreuter became Chief Operating Officer of E.L.I. Computer Time-Sharing, Inc. In April 1970, Mr. Kreuter founded L. Kreuter Associates, a consulting firm directing its main thrust in the area of remote computation. He received a B.A. from City College

LOCATION: Seminars are conducted at the hotels listed below. The cost of hotel rooms is not included in the registration fee. IAT does not arrange hotel reservations; however, the hotels will hold a block of rooms for seminar participants until two weeks before the seminar. Hotel reservation cards will be forwarded with registration confirmations. Please contact the hotels directly for reservations, mentioning IAT; Control Data Corporation; the seminar; and dates attending.

of New York, and a M.B.A. from Rutgers Univer-

sity.

August 30 - September 1, 1971 Sheraton-Silver Spring 8727 Colesville Road Silver Spring, Maryland 20910

September 29 - October 1, 1971

Miyako Hotel

Japanese Cultural & Trade Center

Post and Laguna

San Francisco, California 94119

November 1-3, 1971 **The Summit Hotel of New York** East 51st Street at Lexington Avenue New York, New York 10022

November 22-24, 1971 **Sheraton-Silver Spring** 8727 Colesville Road Silver Spring, Maryland 20910 **REGISTRATION:** The registration fee, including course materials and luncheons, is \$300 for the first participant and \$275 for others from the same organization. Checks for registration should be made payable to The Institute for Advanced Technology. Classes will begin at 9:00 a.m. and end at 5:00 p.m. daily.

OTHER SUBJECTS:

- Simulation for Planning Models
- Training the Systems Analyst
- Clustering
- Optical Character Recognition
- Design of On-Line Computer Systems
- Sales Forecasting
- Microfilm Information Systems
- Compiler Writing
- EDP Project Management
- OCR for Banking
- Standards in Program Development
- Terminals in On-Line & Remote Computing Systems
- Hospital and Medical Information Systems
- Computer-Assisted Instruction
- Privacy & Security and Information Systems
- Information Management Systems Symposium
- Programming and Systems Management
- Results-Oriented Engineering Management
- Advanced EDP System Design Techniques
- Data Processing for the Accounting Profession
- Business Planning Symposium

OTHER PROGRAMS: As an extension to the publicly offered program, The Institute for Advanced Technology offers seminars at the clients' premises or at special IAT facilities. The presentation of special sessions may be a replica of the regularly scheduled program, or may be specially tailored to meet clients' requirements.

For further information, or to be placed on the mailing list for future announcements, write:

REGISTRAR

The Institute for Advanced Technology



5272 River Road, Washington, D.C. 20016 Phone: Area Code 301/652-2268, Ext. 245 WHO SHOULD ATTEND: Managers, supervisors and staff personnel working in a Computing Center. Persons having a significant interface with the computer operations area, i.e., programmers, analysts and others responsible for sections working closely with the Computer Center.

COURSE OBJECTIVE: With the coming of The Operating System, design concepts were implemented and directed at maximizing the effective use of the computing system.

The objective of this seminar is to explore these concepts, their implementation, the problems of use and the latest tools developed to aid in implementation, i.e., automated scheduling, systems measurements, all with the purpose of increasing systems productivity and service.

For those directly involved in the Computer Center, the objective will be better understanding of available tools to gain greater productivity. For those who interact with the Computer Center (programmers, end users, etc.) the objective will be increased understanding of Computer Center requirements, problems, and constraints, all directed at achieving a more production-oriented environment.

COURSE OUTLINE

- I. Introduction
 - A. Goals and Purposes of Seminar
 - B. Background—1st to 4th Generation
 - C. Definition of Terms

II. Functional Organization of Operations

- A. The Classical Data Center
 - 1. Management function
 - 2. The finance and accounting function
 - 3. The technical support function
 - 4. Machine operations
 - 5. Production control function
 - 6. Scheduling function
 - 7. Data preparation function
 - 8. Librarian function
- B. Functional Changes in the Effective Multiprogramming Environment
 - 1. Management
 - 2. Finance and accounting
 - (a) Operating system accounting
 - (b) Shared system accounting
 - (c) Systems overhead
 - (d) Unit and priority accounting
 - 3. Technical support
 - (a) Systems generation
 - (b) Systems adjuncts and alteration
 - (c) Application—redesign

- 4. Operations
 - (a) Operating system interface
 - (b) Dynamic mix alteration
 - (c) File oriented vs. device oriented operation
 - (d) Breakout/restart
 - (e) Systems monitoring
 - (f) Effective thruput
 - (g) Console scheduling
- 5. Production control
 - (a) Modular control
 - (b) Application segmentation
- 6. Scheduling
 - (a) Production simulation
 - (b) Dynamic scheduling
- 7. Data preparation-mix effectiveness
- 8. Librarian
- C. Functional Changes in the Effective Remote Job Entry Environment
 - 1. Management
 - (a) Multiple suppliers
 - 2. Finance and accounting
 - (a) Dedicated system
 - (b) Shared system
 - (c) Communication allocation
 - 3. Technical support
 - (a) Remote user support
 - (b) Sociable application design
 - 4. Machine operations
 - (a) Remote site functions
 - (b) Remote mix alteration
 - (c) Remote peripheral calls
 - (d) Lost in the schedules
 - 5. Production control
 - (a) Lost in the mix
 - (b) Clean data across the lines
 - 6. Scheduling
 - (a) Dedicated system
 - (b) Remote scheduling
 - (c) Dynamic priority alteration
- D. Functional Changes in the Time-Sharing Environment
 - 1. Management
 - (a) Voluminous remote service
 - 2. Finance and accounting
 - (a) Connect, CPU and storage
 - (b) Limits
 - 3. Technical support
 - (a) Remote user support
 - (b) Operating system support
 - 4. Machine operations
 - (a) Console baby sitting
 - (c) Crash and recovery
 - (c) Dump
 - (d) Security

- (e) Data base protection
- (f) Remote response
- 5. Production control
 - (a) Remote control
- 6. Scheduling-machine function
- 7. Data preparation
- 8. Librarian
- E. Multi-Function Environment
- III. Automated Production Scheduling and Control
 - A. Automated Job Control
 - B. Automated Production Scheduling
 - 1. Characteristics of an optimum mix
 - 2. Program characteristics
 - 3. Job schedule data base
 - 4. The generated schedule
 - 5. Simulation
 - 6. Feed back and dynamic alteration
- IV. Systems Performance Measurement
 - A. Measuring Systems Performance
 - 1. Hardware and software measurement
 - 2. Configuration evaluation
 - B. Measuring Program Performance
 - C. Maximum Productivity: What Is It?
 - V. Training Operations for the More Complex Environment
 - A. Defining Level and Depth of Training: Case Study Federal Agency and XYZ Insurance Company
 - B. Training Devices
 - C. Selection Criteria and Training Program
- VI. Functions of Control in the Effective Multiprogramming and On-line Environment
 - A. Production Control Sheet
 - B. Core Requirement
 - C. Controlling Remotely
 - D. Systems Security
 - E. File Security
 F. Audit Trail
- VII. Backup File Recovery Reliability and Duplexing in the Effective Multiprogramming and On-Line Environments
 - A. Reliability Requirements
 - B. Classification of Malfunctions
 - C. Causes, Warning, Preventive and Recovery Actions
- VIII. Communications and Teleprocessing
- IX. System Maintenance in the Effective Multiprogramming and On-Line Environments
- X. Summary

The right to cancel the seminar or to amend the syllabus is reserved.